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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,539	04/23/2001	Michihiro Kaneko	PU01-0171	2127
21254	7590	03/17/2004	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			WONG, KIN C	
			ART UNIT	PAPER NUMBER
			2651	

DATE MAILED: 03/17/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,539

Applicant(s)

KANEKO ET AL.

Examiner

K. Wong

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2651

This is a response to amendment filed on 12/31/03.

Drawings

The drawings were received on 12/31/03. These drawings are approved by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims (8-21) are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The first speed and the second speed for driving the head are not disclosed in the specification; thus, the recitations are considered new matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims (1, 2, 22, 23 and 24) are rejected under 35 U.S.C. 102(b) as being anticipated by Patton, III (588962).

Regarding claim 1: Patton, III discloses a disk drive apparatus (as depicted in figure 1 of Patton, III) for controlling, under supply of a predetermined rating voltage of power voltage (see col. 4, lines 10-15 and figure 1 of Patton, III), a head drive section (element 32 in figure 1) to position a head in a radial direction of an information recording disk (element 38 in figure 1) and carry out write and/or read operation of information while rotatively driving the information recording disk by a rotation drive motor (element 30 in figure 1), the disk drive apparatus including:

a forcible restoring section for controlling the head drive section to forcibly bring the head to a retract position when the power voltage goes below a first voltage level (see col. 2, lines 18-38 and col. 5, lines 19-49 of Patton, III); and

a normal restoring section for controlling the head drive section to move the head toward the retract position on the basis of the power voltage while the power voltage is smaller than the rating voltage but greater than the first voltage level (see col. 4, line 16 to col. 5, line 10 and col. 5, line 64 to col. 6, line 36 of Patton, III).

Regarding claim 2: Patton, III teaches that wherein the information recording disk (element 38 in figure 1) is a magnetic disk (in col. 1, lines 16-21 of Patton, III).

Regarding claim 22: Patton, III a disk drive apparatus (as depicted in figure 1) for controlling, under supply of a predetermined rating voltage of power voltage (see col. 4, lines 10-15 and figure 1), a head drive section (element 32 in figure 1) to position a head in a radial direction of an information recording disk and carry out a write and/or

read operation of information while rotatively driving the information recording disk by a rotation drive motor (element 30 in figure 1), the disk drive apparatus including:

first means for controlling the head drive section to forcibly bring the head to a retract position when the power voltage goes below a first voltage level (see col. 2, lines 18-38 and col. 5, lines 19-49 of Patton, III); and

second means for controlling the head drive section to move the head toward the retract position on the basis of the power voltage when the power voltage is smaller than the rating voltage but greater than the first voltage level (see col. 4, line 16 to col. 5, line 10 and col. 5, line 64 to col. 6, line 36 of Patton, III).

Regarding claim 23: Patton, III discloses a disk drive, including:

a rotation drive motor (element 30 in figure 1) for rotating an information recording disk (element in figure 1);

a head (element 28 in figure 1) for reading and/or writing information onto and/or from the information recording disk;

a voltage (element 50 in figure) input for receiving a predetermined rating voltage of a power voltage (see col. 4, lines 10-15);

a detector (element 46 in figure 1) for detecting an abrupt decrease in the power voltage;

a forcible restoring section, responsive to detection of an abrupt decrease in the power voltage to level less than a first predetermined level, for moving the head in a direction toward an outer periphery of the information recording disk under power of reverse electromotive force from the rotation drive motor (see col. 1, line 63 to col. 2, line 38 and col. 5, lines 19-49 of Patton, III); and

a normal restoring section, responsive to detection of an abrupt decrease in the power voltage to a second predetermined level, less than the rating voltage and equal to or greater than the first predetermined level, for moving the head in a direction toward an outer periphery of the disk under power of voltage, from the voltage input (see col. 4, line 16 to col. 5, line 10 and col. 5, line 64 to col. 6, line 36 of Patton, III).

Regarding claim 24: method claim 24 is drawn to the method of using the corresponding apparatus claimed in claim 22. Therefore method claim 24 corresponds to apparatus claim 22 and is rejected for the same reasons of anticipation as used above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims (3-5 and 7) are rejected under 35 U.S.C. 103(a) as being unpatentable over Patton, III (5889629) in view of Smith et al (6546456).

Regarding claims 3 and 4: the reason for Patton, III is stated in above. Patton, III is silent on power supply that is supplied from the car battery system and ramp for resting the head assembly. Smith et al is relied on for the teaching of supplying the disk drive power supply from the car battery system (see figure 1 and col. 5, line 9 to col. 6, line 3 of Smith et al) and a ramp (element 316 in figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the power supply system of Patton, III to includes with the car battery power system and a ramp for the head as taught by Smith et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide an alternative power source for the disk drive and a safety placement of the head.

Moreover, a substitution of one power source for other and without any unexpected result would be merely a substitution of an element (power source) for the same purpose (i.e. AC to DC or DC to DC). See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958).

Regarding claim 5: Patton, III depicts in figure 1 that wherein the forcible restoring section and the normal restoring section are operated by a microprocessor (element 24 in figure 1) operating on the power voltage.

Regarding claim 7: Patton, III depicts in figure 1 that wherein monitor (element 46) is made on only a battery voltage to the disk drive apparatus to detect variation in the power voltage.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patton, III (58889629) and Smith et al (6546456) as applied to claim 4 above, and further in view of Kao (5374933).

Regarding claim 6: Patton, III and Smith et al are silent on navigation system (or GPS or global positioning system) with a disk drive. Kao is relied on for the teachings of GPS with a disk drive (see col. 7, lines 1-2 and figure 2 of Kao).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the disk drive of Patton, III and Smith et al with a GPS into the disk drive. The rationale is as follows: one ordinary skill in the art would have been motivated to an user route guidance as suggested in col. 7, lines 4-8 of Kao.

Moreover, a substitution of one recorded information data (GPS data) for other and without any unexpected result would be merely a substitution of an information data (i.e., video, audio or text data) for the same purpose (recording data on the disk). See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958).

Response to Arguments

Applicant's arguments filed 12/31/03 have been fully considered but they are not persuasive.

Regarding Latham et al, applicants argue that Latham et al fails to include the instant conditions as claimed – forcible restoring (forced retraction of the head) and normal restoring (normal retraction of the head). The examiner disagrees because Latham et al discloses forcible restoring (forced retraction) of the head with the understanding of the normal retraction of the head that which is an inherent function of

all conventional disk drive. The normal retraction of the head is transparently disclosed or not in Latham et al, such function is an inherently function in all common disk drive; thus, Latham et al discloses the two noted conditions.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pennock (4885517), Albrecht (5486957) and Kawachi et al (6396652) are cited for retraction power control. Kitazaki et al (6141173), Mazda (6140784), Rote et al (6204629), Merello et al (6363214) and Watanabe et al (6490116) are cited for retraction different power sources. Beckert et al (5794164) is cited for disk drive in a vehicle. Claims (8-21) have limitations similar to those treated in the above rejections (1-7), and are met by the references as discussed above; but, it have not been applied because among other things in this office action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (703) 305-7772.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (703) 308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

kw

12 Mar 04


DAVID HUDSPETH
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